

## SKYLAB

MONTHLY REPORT #1 (August 1, 1973)

- A. TITLE: FEASIBILITY OF USING S-191 INFRARED SPECTRA FOR GEOLOGICAL STUDIES FROM SPACE
- B. PRINCIPAL INVESTIGATORS: R.J.P. Lyon: A.A. Green  
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- C. PROPOSAL #9641 Contract # NAS 9-13357
- D. TECHNICAL MONITORS: Larry York/Tim White  
Code TF6  
Johnson Spacecraft Center  
Houston, Texas 77058  
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- E. PERIOD: Start August 1, 1973

(E73-10923) FEASIBILITY OF USING S-191  
INFRARED SPECTRA FOR GEOLOGICAL STUDIES  
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STANFORD UNIVERSITY  
STANFORD, CALIFORNIA 94305

DEPARTMENT OF APPLIED EARTH SCIENCES

Economic Geology  
Environmental Geoscience  
Mineral Economics  
Mining Engineering  
Mineral Processing  
Extractive Metallurgy

August 27, 1973

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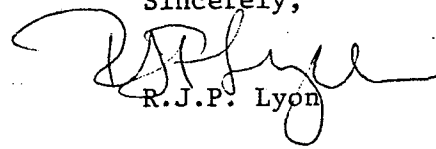
Larry York  
Code TF 6  
Johnson Spacecraft Center  
Houston, Texas

Dear Larry,

EREP Report

Please find enclosed the Skylab monthly report for the month of August.

Sincerely,



R.J.P. Lyon

cc

Tim White

NASA Scientific and Technical Information Facility

V.M. Dauphin

Rex Ritz

Jack Quade

F. OVERALL STATUS (Problem areas, significant progress)

1. SL 2 was not a good mission for us due to two (2) problems.
  - a. Cooling system on SL91 did not function negating data gathering
  - b. Due to an unique combination of spacecraft, target (Mono Lake) and the sun, a sun glint completely obscured the last 50% of the data as ascertained by the 16 mm film from SL91. When viewed using a movie projector this effect can be readily seen, and discriminated from the "appearance" of clouds uniquely exactly over the lake at that time.
2. SL 3 promises to be a better possibility with Walker Lake site prime for September 13, and a back-up possibility for for August 6, 11 and 16.
3. Software is behind development as we are concentrating on field work.

G. RECOMMENDATIONS (Decisions/Actions required to ensure attainment of scientific objectives.)

1. None, coordination of mission planning managers with us is excellent.
2. Track 6 is by far a better line for our work than Track 59, at least according to their nominal ground tracks.

H. EXPECTED ACCOMPLISHMENTS FOR NEXT PERIOD

1. Hopefully SL~~4~~3 will get track 6 on a clear day, before it snows.
2. Ground spectrometer will be used after we have established the ground tracks of both SL 2/3 and the RB 57 IR pallet.

I. SIGNIFICANT RESULTS

None. Too soon yet.

J. SUMMARY OF FUTURE EFFORT

1. Overpass of Skylab + RB 57 + light plane over (and a boat upon) Walker Lake to monitor exact surface temperatures.

2. Monitoring of surface temperatures on Walker Lake and Garfield Flat.
3. RB 57 track selected from Yerington to Walker Lake to Garfield Flat on Tract 6 - Walker to ~~Gaggs~~<sup>GABBS</sup> Flat/Playa on Track 59.

K. TRAVEL SUMMARY AND PLANS

Field work on SL 3 overflight.